

# PRODUCT DATA SHEET

USP XXIV Specification

## Arginine

CAS No. [74-79-3]

$C_6H_{14}N_4O_2$

M.W.: 174.20

**Description:** White, practically odorless crystals. Freely soluble in water; sparingly soluble in alcohol; insoluble in ether.

>> Arginine contains not less than 98.5 percent and not more than 101.5 percent of  $C_6H_{14}N_4O_2$ , as arginine, calculated on the dried basis.

**Identification:** Infrared absorption (197K)

**USP Reference standards** <11> - USP L-Arginine RS

### SPECIFICATION:

Specific rotation <781S>	:	Between +26.3 <sup>o</sup> and 27.7 <sup>o</sup> Test solution: 80mg per mL, in 6 N hydrochloric acid
Loss on drying <731>	:	Dry it at 105 <sup>o</sup> for 3 hours: it loses Not more than 0.5% of its weight
Residue on ignition <281>	:	Not more than 0.03%
Heavy metals, Method I <231>	:	0.0015%
Iron <241>	:	0.003 %
Sulfate <221>	:	A 1.0g portion shows no more Sulfate than corresponds to 0.30mL of 0.020 N sulfuric acid (0.03%)
Chloride <221>	:	A 1.0g portion shows no more Chloride than corresponds to 0.70mL of 0.020 N hydrochloric acid (0.05%)
Organic volatile impurities, Method I Solvent – Use water <231>	:	Meets the requirements
Assay	:	Transfer about 80mg of Arginine, Accurately weighed, to a 125mL flask, dissolve in a mixture of 3mL of formic acid and 50mL of glacial acetic acid, and titrate with 0.1 N perchloric acid VS, determining the endpoint potentiometrically. Perform a blank determination, and make any necessary correction. Each mL of 0.1 N perchloric acid is equivalent to 8.710 mg of $C_6H_{14}N_4O_2$
Packaging and storage	:	Preserve in well-closed containers